

## Message Text

UNCLASSIFIED

PAGE 01 STATE 303954  
ORIGIN NSF-02

INFO OCT-01 EA-12 ISO-00 OES-07 EB-08 ARA-14 COME-00  
L-03 PRS-01 /048 R

DRAFTED BY NSF/ATM/NCAR:GTESI  
APPROVED BY OES/APT/SA:JGDARDIS  
EB/OA/AVP:GRAVETT  
EA/ANP:GALLAGHER  
AF:KSMITH  
ARA/LA:SWILKINSON

-----118330 212008Z /43

P 211945Z DEC 77  
FM SECSTATE WASHDC  
TO AMEMBASSY WELLINGTON PRIORITY  
ALL AFRICAN DIPLOMATIC POSTS  
ALL AMERICAN REPUBLIC DIPLOMATIC POSTS  
AMEMBASSY CANBERRA

UNCLAS STATE 303954

E.O. 11652:N/A

TAGS: TGEN

SUBJECT: LAUNCH OF A 9-METER DIAMETER LONG-LIVED ATMOSPHERIC MONITORING BALLOON (LLAMB) FROM CHRISTCHURCH, NEW ZEALAND IN JANUARY 1978.

1. THE NATIONAL CENTER FOR ATMOSPHERIC RESEARCH - GLOBAL ATMOSPHERIC MEASUREMENTS PROGRAM GROUP, A PRIVATE CONTRACTOR ON A PROJECT FUNDED BY THE NATIONAL SCIENCE FOUNDATION (NSF) PLANS TO LAUNCH A 9-METER DIAMETER, LONG-LIVED ATMOSPHERIC MONITORING BALLOON (LLAMB) FROM CHRISTCHURCH, NEW ZEALAND IN JANUARY 1978.

2. THE PURPOSE OF THIS FIGHT IS TO TEST THE PERFORMANCE  
UNCLASSIFIED

UNCLASSIFIED

PAGE 02 STATE 303954

OF THE LLAMB BALLOON AS A VEHICLE FOR VERY LONG DURATION BALLOON FLIGHTS. THE BALLOON WILL BE INSTRUMENTED TO MEASURE BASIC ENGINEERING PARAMETERS WHICH INDICATE THE ABILITY OF THE BALLOON TO REMAIN ALOFT FOR LONG PERIODS. THESE PARAMETERS INCLUDE OVER-PRESSURE, GAS TEMPERATURE, AIR TEMPERATURE AND STRAIN IN THE BALLOON MATERIAL. THE ULTIMATE GOAL OF THIS PROJECT IS TO DE-

VELOP A BALLOON SYSTEM CAPABLE OF VERY LONG DURATION FLIGHTS, WHICH CAN BE USED AS A STRATOSPHERIC PLATFORM FOR RESEARCH SUCH AS LONG-TERM MONITORING OF UPPER

ATMOSPHERIC GAS CONCENTRATIONS AND MAGNETIC SURVEYS AT A VERY LOW COST PER DATA UNIT.

3. THE FLIGHT TRAJECTORY FOR THE BALLOON WILL BE APPROXIMATELY TWENTY DEGREES TO FIFTY DEGREES SOUTH LATITUDE. THE BALLOON IS MOST LIKELY TO PASS OVER ARGENTINA, AUSTRALIA, BRAZIL, BOTSWANA, CHILE, MALAGASY REPUBLIC, MOZAMBIQUE, PARAGUAY, RHODESIA, SOUTH AFRICA, SOUTH WEST AFRICA, AND URUGUAY. HOWEVER, DURING THE COURSE OF A YEAR'S FLIGHT, UNFAVORABLE WINDS COULD CAUSE THE BALLOON TO OVERFLY ANY SOUTHERN HEMISPHERE COUNTRY AND CERTAIN NORTHERN HEMISPHERE COUNTRIES SOUTH OF TWENTY DEGREES NORTH LATITUDE.

4. THE PLANNED FLIGHT DURATION FOR THIS TEST IS FOR A MAXIMUM OF ONE YEAR. A MAGNETIC CUTDOWN SENSOR WILL BE USED TO PREVENT THE BALLOON FLYING BEYOND A PRESET NORTHERN GEOMAGNETIC LATITUDE, APPROXIMATELY FIFTEEN DEGREES NORTH LATITUDE. THIS DEVICE WILL ACTIVATE A CUTDOWN MECHANISM TO DESTROY THE BALLOON. AN HF RECEIVER WILL BE INCLUDED FOR COMMAND CUTDOWNS. THE BALLOON PLATFORM WILL BE DESIGNED TO FLY AT A CONSTANT PRESSURE-  
UNCLASSIFIED

UNCLASSIFIED

PAGE 03 STATE 303954

ALTITUDE BETWEEN 46,000 AND 47,800 FEET IN THE SOUTHERN HEMISPHERE ABOVE CONVENTIONAL AIRCRAFT AND BELOW THE FLIGHT LEVEL OF A SUPERSONIC TRANSPORT. SHOULD THE BALLOON DESCEND BELOW THE DESIGNATED FLIGHT LEVEL, A PRESSURE SENSITIVE CUTDOWN DEVICE WILL ACTIVATE TO BRING THE BALLOON DOWN, TO THE GROUND, WITHIN A FEW HOURS.

5. THIS BALLOON FLIGHT IS BEING CARRIED OUT IN ACCORDANCE WITH AN AGREEMENT BETWEEN THE NSF AND THE NEW ZEALAND METEOROLOGY SERVICE, SIGNED MAY 28, 1976 AND AUGUST 2, 1976, TO CONTINUE JOINTLY THE TESTING OF A CONSTANT LEVEL BALLOON SYSTEM FOR METEOROLOGICAL OBSERVATIONS IN THE SOUTHERN HEMISPHERE.

6. ADDRESSEE POSTS ARE REQUESTED TO NOTIFY AT THEIR DISCRETION HOST GOVERNMENTS OF THIS PROGRAM AND POSSIBLE PASSAGE OF THE BALLOON. VANCE

UNCLASSIFIED

NNN

## Message Attributes

**Automatic Decaptioning:** X  
**Capture Date:** 01-Jan-1994 12:00:00 am  
**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** MONITORING  
**Control Number:** n/a  
**Copy:** SINGLE  
**Sent Date:** 21-Dec-1977 12:00:00 am  
**Decaption Date:** 01-Jan-1960 12:00:00 am  
**Decaption Note:**  
**Disposition Action:** n/a  
**Disposition Approved on Date:**  
**Disposition Case Number:** n/a  
**Disposition Comment:**  
**Disposition Date:** 01-Jan-1960 12:00:00 am  
**Disposition Event:**  
**Disposition History:** n/a  
**Disposition Reason:**  
**Disposition Remarks:**  
**Document Number:** 1977STATE303954  
**Document Source:** CORE  
**Document Unique ID:** 00  
**Drafter:** GTESI  
**Enclosure:** n/a  
**Executive Order:** N/A  
**Errors:** N/A  
**Expiration:**  
**Film Number:** D770476-0440  
**Format:** TEL  
**From:** STATE  
**Handling Restrictions:** n/a  
**Image Path:**  
**ISecure:** 1  
**Legacy Key:** link1977/newtext/t19771230/aaaaazdz.tel  
**Line Count:** 111  
**Litigation Code IDs:**  
**Litigation Codes:**  
**Litigation History:**  
**Locator:** TEXT ON-LINE, ON MICROFILM  
**Message ID:** da1d16ff-c188-dd11-92da-001cc4696bcc  
**Office:** ORIGIN NSF  
**Original Classification:** UNCLASSIFIED  
**Original Handling Restrictions:** n/a  
**Original Previous Classification:** n/a  
**Original Previous Handling Restrictions:** n/a  
**Page Count:** 3  
**Previous Channel Indicators:** n/a  
**Previous Classification:** n/a  
**Previous Handling Restrictions:** n/a  
**Reference:** n/a  
**Retention:** 0  
**Review Action:** RELEASED, APPROVED  
**Review Content Flags:**  
**Review Date:** 10-Mar-2005 12:00:00 am  
**Review Event:**  
**Review Exemptions:** n/a  
**Review Media Identifier:**  
**Review Release Date:** n/a  
**Review Release Event:** n/a  
**Review Transfer Date:**  
**Review Withdrawn Fields:** n/a  
**SAS ID:** 156497  
**Secure:** OPEN  
**Status:** NATIVE  
**Subject:** LAUNCH OF A 9-METER DIAMETER LONG-LIVED AT- MOSPHERIC MONITORING BALLOON (LLAMB) FROM CHRISTCHURCH, NEW ZEALAND IN JANUARY 1978.  
**TAGS:** TGEN  
**To:** WELLINGTON AF POSTS MULTIPLE  
**Type:** TE  
**vdkgvkey:** odbc://SAS/SAS.dbo.SAS\_Docs/da1d16ff-c188-dd11-92da-001cc4696bcc  
**Review Markings:**  
Margaret P. Grafeld  
Declassified/Released  
US Department of State  
EO Systematic Review  
22 May 2009  
**Markings:** Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009